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Sportfishing in Canada

Fisheries and
Environment CanadaPêches et
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HIGHLIGHTS: Survey of Sportfishing in Canada

Early in 1976, approximately 50,000 questionnaires were distributed by mail to anglers. Information was sought with respect to their sportfishing activities in Canada during 1975. Highlights of some major findings are outlined, although ongoing statistical analyses may necessitate a revision of data in this publication.

Purpose and Organization

The survey was organized and coordinated by Fisheries and Environment Canada to provide a framework of information regarding the size and importance of Canada's sport fisheries. It was made possible through the full support and participation of Canada's sport fisheries licensing and management agencies. It was the most comprehensive survey of its kind and the first devoted exclusively to compiling information on Canada's recreational fisheries.

To obtain commonly agreed upon data, plus other information sought by several of the cooperating agencies, 13 separate surveys were conducted by the 10 provincial fisheries agencies and by the regional offices of Fisheries and Environment Canada. Out of 50,000 questionnaires issued, approximately 30,000 were returned by anglers who sportfished in Canada in 1975. In the majority of cases, anglers names and addresses were selected from fishing licences. However, in jurisdictions like

Ontario where there is no requirement for a resident angler licence, the questionnaires went to a selection of households. Coverage of anglers within National Parks and the east coast tidal fisheries was limited to those individuals who also fished in one of the other jurisdictions or areas surveyed. Statistical information in this bulletin is based on responses from adult anglers, with adults being defined as individuals who purchased an angling licence, or those anglers 16 years and over, in jurisdictions without resident licensing.

In order to ensure comparability, returned questionnaires were processed and, with two exceptions, analysed by the Recreational Fisheries Branch of Fisheries and Environment Canada. Cooperating provincial and federal agencies have received summaries of their respective survey results, while highlights of national totals are presented herein.

Survey Background

The impetus for the survey can be traced back to the first Federal-Provincial Conference on Fisheries Development in 1964, which directed the attention of all governments to the growing socio-economic significance of sportfishing. This led to the 1965 Symposium on the Economic Aspects of Sportfishing, where it became obvious that there was little statistical information about sport fisheries at the national level. The need

to develop such data emerged as the first priority when federal and provincial sport fisheries resource managers met for the first time in 1970 to examine matters of common concern respecting recreational fishing. At that and subsequent Canadian Sport Fisheries Conferences, the representatives of all provinces and territories offered their support, and recommended that the federal fisheries authorities take the lead in the development of comprehensive and timely data on the scope and importance of sportfishing in Canada.

The tables and commentary that follow contain major survey results. Included is an outline of participation in sportfishing in Canada, angler effort as distributed seasonally, catch by species, expenditures and major purchases made in pursuit of this activity, origin of nonresidents, and information on ownership and use of pleasure craft for sportfishing.

Angler Numbers and Effort

Close to one in every four Canadians fished in 1975, and every sixth angler was a visitor to this country. Table 1 shows 5.4 million Canadians and over one million non-Canadians fished in Canada during 1975. Anglers under 16, and those under the legal licensing age in certain provinces, made up 27% of total angler numbers.

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The percentage of male and female adult anglers is shown in Fig. 1. Visitors, including those Canadians who fished outside their home province, made up 19% of the total angler population, and accounted for 11% of the total effort as measured in angler days. This effort ranged from fly-fishing for shad on Nova Scotia's Stewiacke river, to trolling for the prized "muskie" of Ontario's Kawartha Lakes. In fact, whether the focus is on the approximately 500 big game fishermen who fulfilled a lifelong ambition by landing an east coast giant bluefin tuna, or on the thousands of children who gather part of the yearly spawning run of capelin on Newfoundland beaches, an impressive characteristic of these statistics is the variety of forms to which this activity lends itself.

Table 1. Angler participation

	Resident	Nonresident		Total
		Canadian ³	Other	
Adults ¹				
Male	2 866 100	94 200	682 700	3 643 000
Female	860 000	22 000	153 200	1 035 200
Total	3 726 100	116 200	835 900	4 678 200
Children ²				
Both sexes	1 513 600	39 700	211 700	1 765 000
Canada total	5 239 700	155 900	1 047 600	6 443 200

¹ Individuals who purchased an angler licence in a province/territory, or were anglers 16 years and older in jurisdictions without resident licence requirements. This group provides the basis for the statistical information presented in this bulletin.

² Individuals under legal licensing age when same is required by a jurisdiction, or under 16 years of age when no licence is required.

³ Canadians who fished in provinces/territories other than that of their residence.

Fig. 1. Sex composition of (A) resident anglers (B) nonresident anglers.

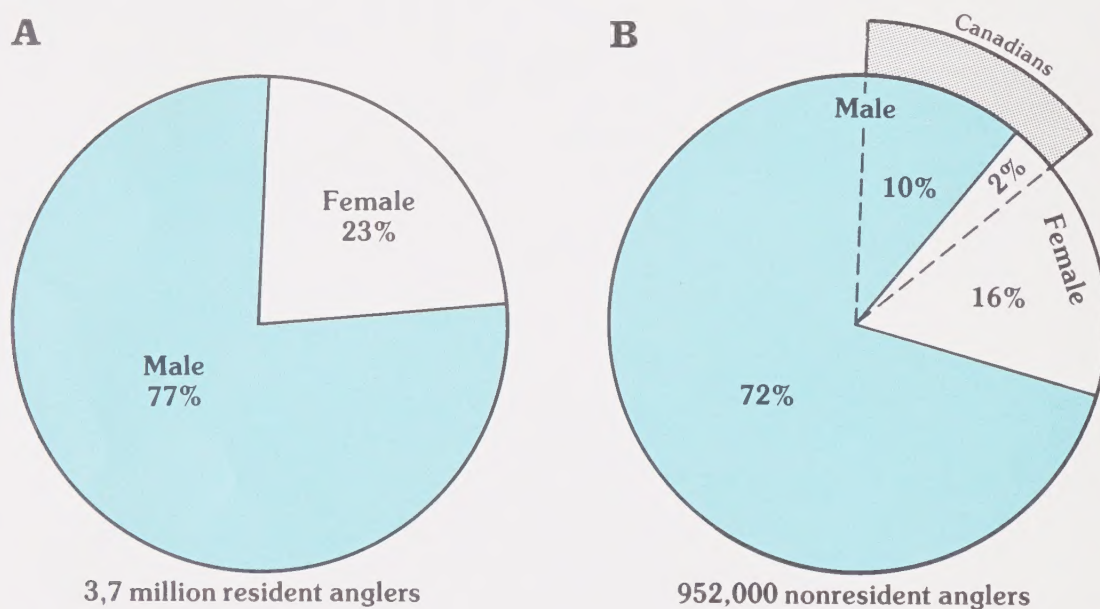
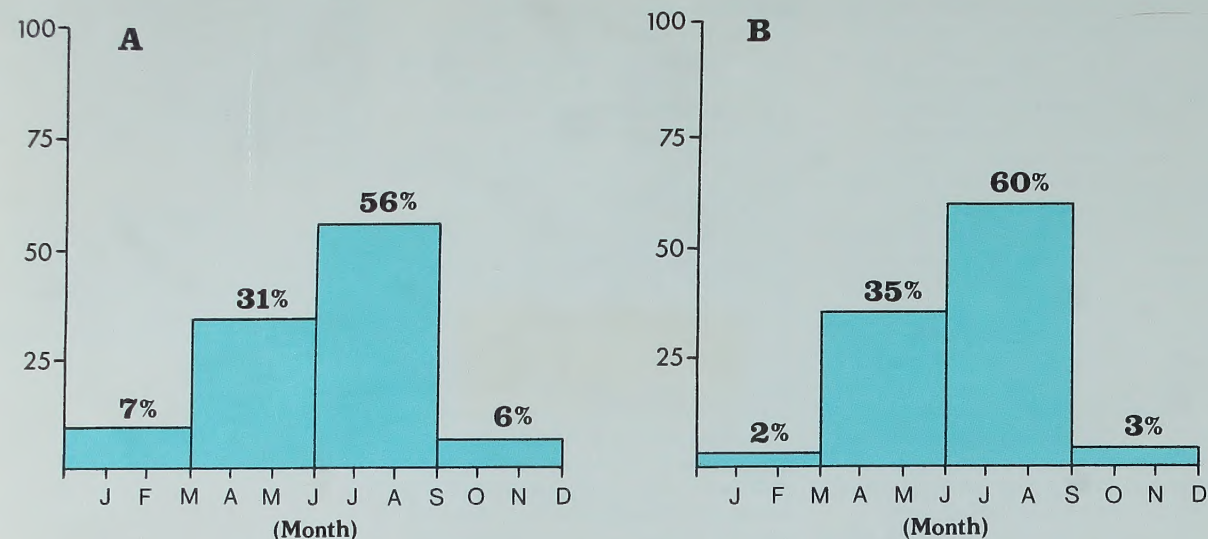


Table 2 details the almost 75 million days spent sportfishing by season, for resident and nonresident anglers. The 42 million angler days spent (all or part of a day fished) between July and September represent 56% of all annual effort and reflect the summer orientation of this activity. For some, the angling day was one or two hours of relaxed fishing after a day's work while for others, it was a dawn to dusk vigil on a remote stream casting hundreds of times for an elusive and wary prey. The seasonal nature of fishing by resident and nonresident anglers is graphically represented in Fig. 2.

Table 2. Angler effort by season (in '000 angler days)

	Resident	Nonresident		Total
		Canadian	Other	
January-March	4 809.9	27.1	119.9	4 956.9
April-June	20 556.3	342.9	2 642.0	23 541.2
July-September	37 020.9	750.2	4 303.4	42 074.5
October-December	3 913.2	41.6	233.8	4 188.6
Canada total	66 300.3	1 161.8	7 299.1	74 761.2

Fig. 2. (A) Resident angler effort by season. (B) nonresident angler effort by season.



The variety of angling opportunity is enormous. Fishing smelt through the ice on a cold clear February afternoon, spearfishing in ocean waters during the warm summer months, and wetting-a-line off a pier in a city harbour, are all components of one of Canada's most popular outdoor experiences — sportfishing.

Catch of Fish

Table 3 lists the top sixteen species of fish landed by anglers. Atlantic cod and mackerel, a significant part of the east coast tidal sport fisheries, are under-represented because of the limited survey of anglers who fished these waters. Species are ranked in order of total numbers of fish caught and retained by anglers. The first four species accounted for over half the total. However, the diversity represented in the total catch of over 225 million fish is indicative of the great appeal of sportfishing to people of all ages, to all regions of the country, and to all levels of skill at the sport.

Though every angler has his or her view of what constitutes good fishing and the most desired species, it is not necessarily success with the more abundant species, but rather the catch of an Atlantic or Pacific salmon, a steelhead, an Arctic char, a muskellunge, or a bluefin tuna that is more likely to be recounted again and again, and embellished with each retelling, in the universal tradition of the fishing yarn. There is little doubt that the foregoing are among

Table 3. Numbers of fish caught and retained, by species (in '000).

Fish Species	Resident	All non-residents	Total
Yellow perch (<i>Perca flavescens</i>)	37 413	5 898	43 311
Brook trout (<i>Salvelinus fontinalis</i>)	37 628	801	38 429
Walleye (<i>Stizostedion vitreum</i>)	14 664	6 797	21 461
Northern pike (<i>Esox lucius</i>)	12 305	3 990	16 295
Catfish (<i>Ictalurus nebulosus</i>)	7 924	143	8 067
Smallmouth bass (<i>Micropterus dolomieu</i>)	6 366	1 489	7 855
Rainbow trout (<i>Salmo gairdneri</i>)	7 012	729	7 741
Atlantic tomcod (<i>Microgadus tomcod</i>)	6 309	4	6 309
Lake trout (<i>Salvelinus namaycush</i>)	5 638	648	6 286
Atlantic cod (<i>Gadus morhua</i>)	4 433	4	4 433
Bass (unspecified)	4 068	289	4 357
Largemouth bass (<i>Micropterus salmoides</i>)	3 353	665	4 018
Trout (unspecified)	3 658	79	3 737
Perch (unspecified)	3 013	170	3 183
Whitefish (unspecified)	1 967	222	2 189
Atlantic mackerel (<i>Scomber scombrus</i>)	1 763	4	1 763
Others ⁵	41 582	7 654	49 236
Canada total	199 096	29 574	228 670

⁴Numbers caught and retained are not considered to be statistically reliable.

⁵Although retention of over 18 million rainbow smelt (*Osmerus mordax*) is included, the methods of catch and the size of the species is such that a relative comparison, for purposes of this table, is not meaningful.

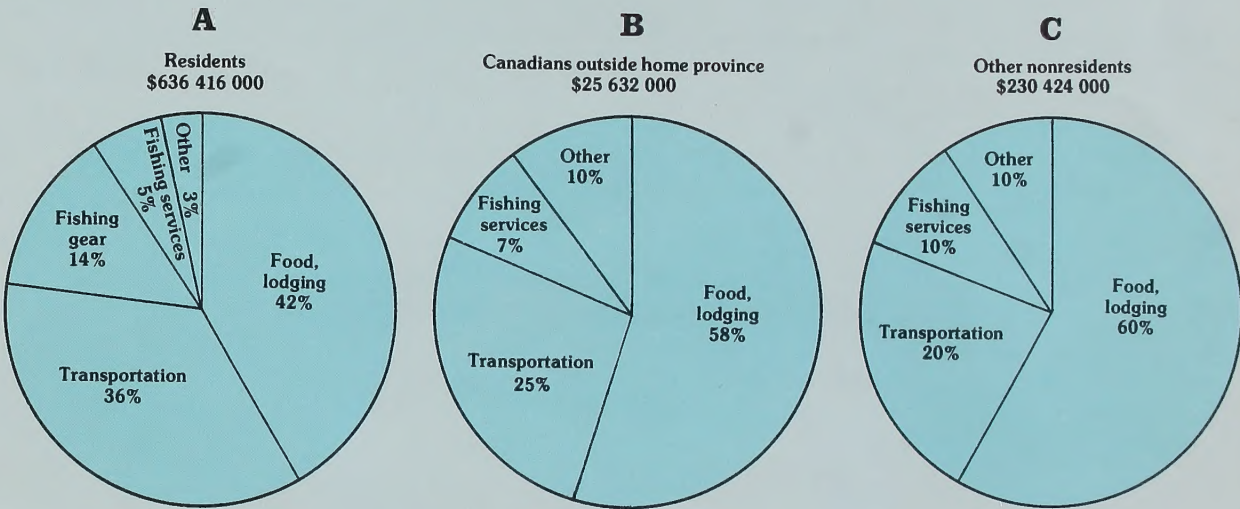
Canada's premier gamefish. Though relatively fewer of these fish are landed, much money and effort is expended in pursuit of these fighting fish, and they tend to be enveloped in a mystique that forms the basis of much of our fishing lore. The sport catch of these highly desired species include, for example, 467 000 Atlantic salmon, 1 221 000

coho and 503 000 chinook salmon, (excluding grilse, but including Pacific salmon from the Great Lakes) and 540 bluefin tuna. The latter weighed an average of 845 pounds when landed by rod and reel, a dramatic contrast with the more than 18 million smelt reportedly caught, each weighing two or three ounces.

Angler Expenditures

Sportfishing is big business! Table 4 categorizes the 900 million dollars spent by anglers during 1975 on goods and services directly related to sportfishing. These aggregated dollar totals tend to mask the diversity of items purchased. They range from novices' plastic bobbers to the ardent devotees' handtied flies; from the few gallons of fuel used to get to one's favourite local fishing spot to \$1000-a-week package excursions to the Arctic char fishing camps of Canada's northern waters. By far the most significant category was "food and lodging" which alone accounted for 42% of Canadians' and 60% of non-Canadians' total expenditures. Figure 3 illustrates expenditures by anglers.

Fig. 3.



Annual Investment

In addition to direct expenditures, a number of major purchases were made by anglers to enable them to engage in sportfishing (Table 5). The most significant items are boats, recreational vehicles, cottages and other durable goods purchased by anglers and used in whole, or in part, for sportfishing. Boats and related equipment accounted for 39% of the near billion additional dollars spent this way by residents. Apart from identifying the percentage of boat days used for fishing, the proportion of these expenditures attributable to sportfishing has not been calculated. Nevertheless, the amount of this type of investment in 1975 alone is an indication of the substantial investment maintaining the sport.

Table 4. Expenditures attributable to sportfishing (in '000 1975 dollars)

Expenditures	Resident	Nonresident		Total
		Canadian	Other	
Food and Lodging	266 850	12 769	132 666	412 285
Transportation	230 103	7 689	56 804	294 596
Fishing Services	34 584	2 498	17 062	54 144
Fishing Gear	87 021	1 782	9 553	98 356
Other	17 858	894	14 339	33 091
Canada total	636 416	25 632	230 424	892 472

Table 5. Distribution of major purchases attributable (in whole, or in part) to sportfishing.

Major purchases	Resident	Nonresident		Total
		Canadian	Other	
Total (\$'000)	919 026	14 425	10 397	943 848
Percent				
Fishing equipment	3,0	4,6	5,2	3,0
Boats and related equipment	39,3	14,2	14,1	38,6
Camping equipment	23,4	2,3	2,3	22,8
Special vehicles (ATV's, etc.)	23,4	13,8	13,7	23,2
Land/buildings	8,9	64,1	63,7	10,4
Other	2,0	1,0	1,0	2,0
Canada total	100,0	100,0	100,0	100,0

Boat Ownership and Use

Table 6 gives characteristics of the estimated 1.8 million pleasure craft, owned and operated by resident anglers and their families, which were used for sportfishing purposes. Although anglers fish from all types of craft ranging from canoes and sailboats to cabin cruisers, the most popular boat is the outboard. They account for 42% of all craft, and some 40% of the over 2 billion dollar total 1975 market value of these assets. Most outboards are used principally in freshwater, with half their recreational time devoted to sportfishing.

Table 6. Recreational boat ownership, market value, and use by resident anglers.

Boat Type	Number	1975 market value (\$'000)	Days recreation use ('000)	Days freshwater sportfishing ('000)	Days saltwater sportfishing ('000)	% fishing days to total days
Rowboat	178 188	50 058	4 160	1 935	192	52
Inboard-outboard	54 485	314 499	2 610	614	290	35
Outboard	781 147	862 056	24 804	10 949	1 177	49
Canoe	414 153	114 824	9 688	3 739	41	39
Inboard	38 633	170 016	1 820	221	162	21
Sailboat	112 320	312 456	2 751	82	54	5
Others	262 181	315 528	6 828	3 046	485	52
Canada total	1 841 107	2 139 437	52 661	20 586	2 401	44

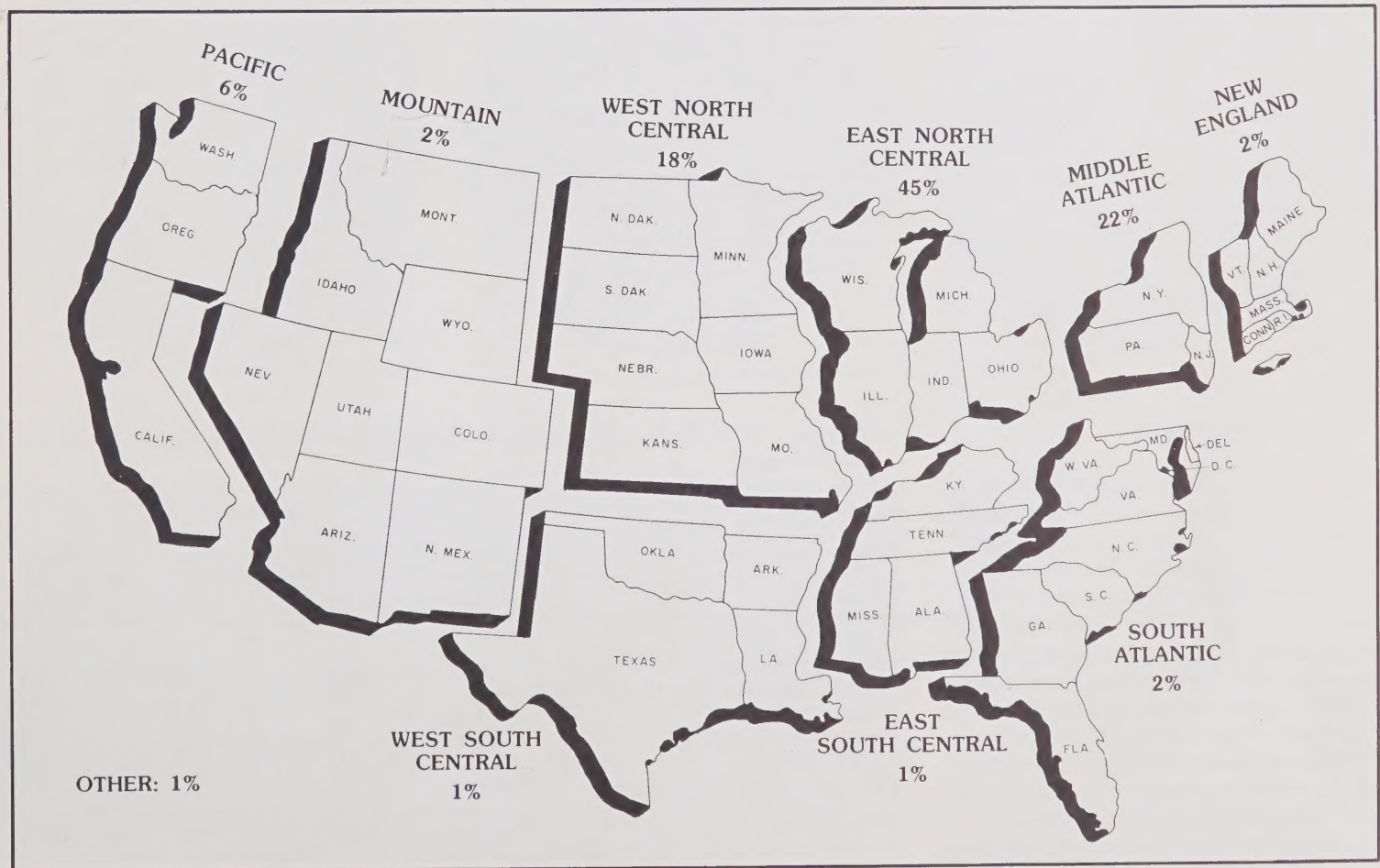
Origins of Visiting Anglers

As illustrated in Figure 4, 45% of the anglers from the United States come from the East North Central group

of states. When combined with the Middle Atlantic states of New York, New Jersey and Pennsylvania, it is not surprising that this overall area accounts for 67% of the American angler traffic, given

the proximity to the Canadian border, and the population densities involved.

Fig. 4. Distribution of visiting anglers who fished in Canada during 1975, by areas of origin.



Perspectives for the Future

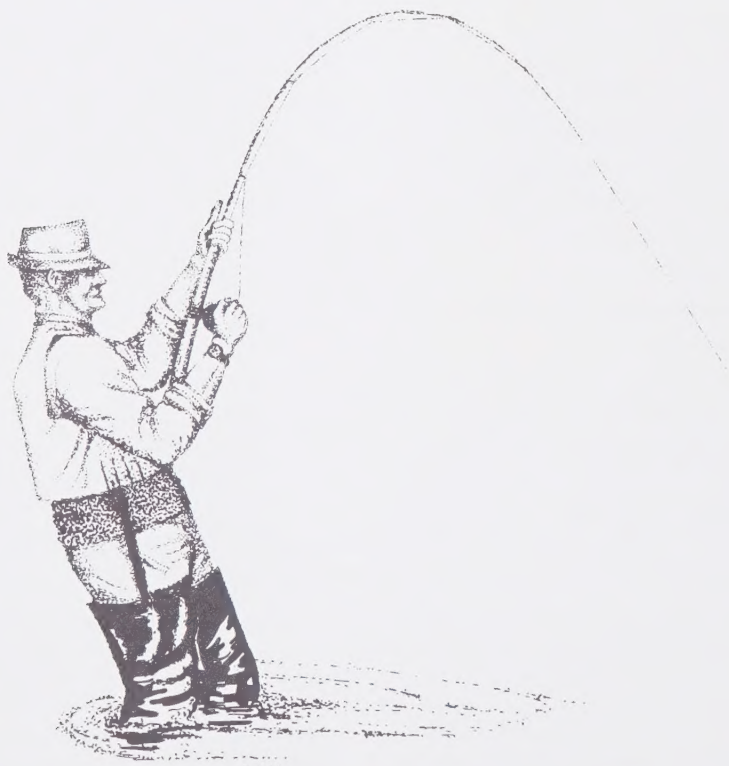
In addition to angler enjoyment and the lustre that the presence of game fish in clean waters adds to the quality of life of all Canadians, the 1975 survey demonstrates that recreational fishing in Canada is significant in terms of the numbers of participants, the time devoted, the food value of the catch, and various key aspects of its economic impact, for example, in terms of tourism revenues. An activity participated in by nearly one out of every four Canadians is a matter of interest to all Canadians, as well as to the anglers directly concerned. Because of their nature and scope, sport fisheries are a matter of primary interest to all those involved in policy and program formulation related to regional development, industrial strategies, opportunities for native employment, the protection and enhancement of the aquatic ecosystem, and the contributions being made in the areas of physical and mental well-being. The framework of socio-economic and biological information provided by the survey should also

enable improved assessments to be made of fisheries performance and potential by all levels of decision-makers. Any gains through improved understanding and management should, of course, accrue to all Canadians in their respective capacities as anglers and/or owners of the resource.

The 1975 Survey of Sportfishing is the first of such surveys scheduled to be carried out at five-year intervals. It is expected that each province, as well as the federal government, will continue to develop complementary information during the inter-survey years. The extent and usefulness of the information generated is a reflection of the support and assistance of provincial sport fisheries management and licensing agencies. Several provinces, which were already in the process of organizing and conducting their own surveys, adjusted their survey timing and content so as to enable national aggregation and comparability in data. Above all, tribute has to be paid to the anglers whose willingness to provide information made this undertaking a success.

A more detailed publication containing survey results and analyses of the data is now being prepared for release in 1978. It will be followed by technical publications describing and evaluating the methodology used in the survey. Further information relative to this, or future surveys, may be obtained by writing to:

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This bulletin is a periodic publication produced by the Information Branch of the Fisheries and Marine Service, Fisheries and Environment Canada. It is intended to provide information on the socio-economic aspects of sportfishing in Canada and on the related conservation, management and development of recreational fisheries. Reader comment and enquiries should be directed to:

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